

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/P/TO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Sheet 1 of 6

Complete if Known

Application Number	10/691,396
Filing Date	October 21, 2003
First Named Inventor	HIGGINS, Michael, Francis
Art Unit	2628
Examiner Name	AMIN, Jwalant B.
Attorney Docket Number	08831.0059

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/JA/		US-4,439,759	03-27-1984	Fleming et al	
		US-5,233,385	08-03-1993	Sampson	
		US-5,416,890	05-16-1995	Beretta	
		US-5,438,649	08-01-1995	Ruetz	
		US-5,448,652	09-05-1995	Vaidyanathan et al	
		US-5,694,186	12-02-1997	Yanagawa et al	
		US-5,719,639	02-17-1998	Imamura	
		US-5,724,442	03-03-1998	Ogatsu et al	
		US-5,731,818	03-24-1998	Wan et al	
		US-5,917,556	06-29-1999	Katayama	
		US-5,933,253	08-03-1999	Ito et al	
		US-5,987,165	11-16-1999	Matsuzaki et al	
		US-6,023,527	02-08-2000	Narahara	
		US-6,054,832	04-25-2000	Kunzman et al	
		US-6,108,053	08-22-2000	Pettitt et al	
		US-6,256,425 B1	07-03-2001	Kunzman	
		US-6,297,826 B1	10-02-2001	Semba et al	
		US-6,360,008 B1	03-19-2002	Suzuki et al	
/JA/		US-6,483,518 B1	11-19-2002	Perry et al	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
/JA/		WO 2004/086128 A1	10-07-2004	Kim et al		
/JA/		WO 01/37251 A1	05-25-2001	Hirano et al		
/JA/		JP 08-202317	08-09-1996	Moriyoshi		Abstract
/JA/		JP 6-261332	09-16-1994	Kanazawa et al		Abstract
/JA/		WO 2004/040548	05-13-2004	Ben-Chorin et al		

Examiner Signature	/Jwalant Amin/	Date Considered	05/21/2009
--------------------	----------------	-----------------	------------

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Sheet 2 of 6

Complete if Known

Application Number	10/691,396
Filing Date	October 21, 2003
First Named Inventor	HIGGINS, Michael, Francis
Art Unit	2628
Examiner Name	AMIN, Jwalant B.
Attorney Docket Number	08831.0059

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/JA/		US-6,536,904 B2	03-25-2003	Kunzman	
		US-4,737,843	04-12-1988	Spencer	
		US-4,946,259	08-07-1990	Matino et al	
		US-5,642,176	06-24-1997	Abukawa et al	
		US-5,661,371	08-26-1997	Salerno et al	
		US-5,724,112	03-03-1998	Yoshida et al	
		US-5,748,828	05-05-1998	Steiner et al	
		US-5,751,268	05-12-1998	Sheridon	
		US-5,880,707	03-09-1999	Aratani	
		US-5,899,550	05-04-1999	Masaki	
		US-5,903,366	05-11-1999	Hirabayashi et al	
		US-5,929,843	07-27-1999	Tanioka	
		US-5,990,997	11-23-1999	Jones et al	
		US-5,995,669	11-30-1999	Shingu et al	
		US-6,100,872	08-08-2000	Aratani et al	
		US-6,147,728	11-14-2000	Okumura et al	
		US-6,262,698 B1	07-17-2001	Blum	
		US-6,384,836 B1	05-07-2002	Naylor, Jr. et al	
/JA/		US-6,453,067 B1	09-17-2002	Morgan et al	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶

Examiner Signature	/Jwalant Amin/	Date Considered	05/21/2009
--------------------	----------------	-----------------	------------

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT


(Use as many sheets as necessary)

Complete if Known

Application Number	10/691,396
Filing Date	October 21, 2003
First Named Inventor	HIGGINS, Michael, Francis
Art Unit	2628
Examiner Name	AMIN, Jwalant B.
Attorney Docket Number	08831.0059

Sheet	3	of	6
-------	---	----	---

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code (<i>if known</i>)			
/JA/ 		US-6,459,419 B1	10-01-2002	Matsubayashi	
		US-6,633,302 B1	10-14-2003	Ohsawa et al	
		US-6,714,212 B1	03-30-2004	Tsuboyama et al	
		US-6,714,243 B1	03-30-2004	Mathur et al	
		US-6,724,934 B1	04-20-2004	Lee et al	
		US-6,750,874 B1	06-15-2004	Kim	
		US-6,771,028 B1	08-03-2004	Winters	
		US-6,781,626 B1	08-24-2004	Wang	
		US-2001/0019382 A1	09-06-2001	Song et al	
		US-2002/0063670 A1	05-30-2002	Yoshinaga et al	
		US-2002/0180688 A1	12-05-2002	Drzaic et al	
		US-2002/0191130 A1	12-19-2002	Liang et al	
		US-2003/0128872 A1	07-10-2003	Lee et al	
		US-2003/0151694 A1	08-14-2003	Lee et al	
		US-2003/0193056 A1	10-16-2003	Takayama et al	
		US-2003/0214499 A1	11-20-2003	Ohsawa et al	
		US-2004/0046725 A1	03-11-2004	Lee	
	/JA/		US-2004/0072380 A1	04-15-2004	Yamazaki et al
		US-2004/0095521 A1	05-20-2004	Song et al	

FOREIGN PATENT DOCUMENTS

[illegible]

Examiner Signature	/s/ Iwalant Amin/	Date Considered	05/21/2009
-----------------------	-------------------	--------------------	------------

*EXAMINER: [initial of reference considered] whether or not citation is in conformance with MPPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPPEP 901. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.114. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/P/T/O

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/691,396
Filing Date	October 21, 2003
First Named Inventor	HIGGINS, Michael, Francis
Art Unit	2628
Examiner Name	AMIN, Jwaland B.
Attorney Docket Number	08831.0059

Sheet 4 of 6

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
/JA/		US-2004/0169807 A1	09-02-2004	Rho et al	
		US-2004/0179160 A1	09-16-2004	Rhee et al	
		US-2004/0195963 A1	10-07-2004	Choi et al	
		US-2004/0222999 A1	11-11-2004	Choi et al	
		US-2004/0223005 A1	11-11-2004	Lee	
		US-2003/0058466 A1	03-27-2003	Hoshuyama	
		US-2003/0117457 A1	06-26-2003	Qiao	
		US-2003/0179212 A1	09-25-2003	Matsushiro et al	
		US-2005/0031199 A1	02-10-2005	Ben-Chorin et al	
		US-6,980,219 B2	12-27-2005	Higgins	
		US-7,176,935 B2	02-07-2007	Higgins	
		US-2005/0083341 A1	04-21-2005	Higgins et al	
		US-2005/0083344 A1	04-21-2005	Higgins	
		US-2005/0083345 A1	04-21-2005	Higgins	
		US-2005/0083352 A1	04-21-2005	Higgins	
		US-2005/0225562 A1	10-13-2005	Higgins et al	
/JA/		US-2005/0264580 A1	12-01-2005	Higgins	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Documents	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶

Examiner Signature	/Jwaland Amin/	Date Considered	05/21/2009
--------------------	----------------	-----------------	------------

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Complete if Known	
		Application Number	10/691,396
		Filing Date	October 21, 2003
		First Named Inventor	HIGGINS, Michael Francis
		Art Unit	2628
		Examiner Name	AMIN, Jwalant B
Sheet	5	of	6
		Attorney Docket Number	08831.59

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/JA/		Betrissey, C., et al., "Displaced Filtering for Patterned Displays, SID Symp. Digest 1999, pgs 296-299	
/JA/		Brown Elliott, C., "Active Matrix Display....", IDMC 2000, 185-189, 8/2000.	
/JA/		Brown Elliott, C., "Color Subpixel Rendering Projectors and Flat Panel Displays," SMPTE, Feb 27-Mar 1, 2003, Seattle, WA pp 1-4	
/JA/		Brown Elliott, C., "Co-Optimization of Color AMLCD Subpixel Architecture and Rendering Algorithms," SID 2002 Proceedings Paper, May 30, 2002 pp 172-175	
/JA/		Brown Elliott, C., "Development of the PenTile Matrix™ Color AMLCD Subpixel Architecture and Rendering Algorithms", SID 2003, Journal Article	
/JA/		Brown Elliott, C., "New Pixel Layout for PenTile Matrix™ Architecture", IDMC 2002, pp 115-117	
/JA/		Brown Elliott, C., "Reducing Pixel Count Without Reducing Image Quality", Information Display 12/99, Vol 1, pp 22-25	
/JA/		Credelle, Thomas, "P-00: MTF of High-Resolution PenTile Matrix Displays", Eurodisplay 02 Digest, 2002 Pages 1-4	
/JA/		Klompenerhouwer, Michiel, "Subpixel Image Scaling for Color Matrix Displays, SID Symp. Digest, 05/02, pp 176-179	
/JA/		Michiel A. Klompenerhouwer, Gerard de Haan, Subpixel image scaling for color matrix displays, Journal of the Society for Information Display, Volume 11, Issue 1, March 2003, pp. 99-108	

Examiner Signature	/Jwalant Amin/	Date Considered	05/21/2009
--------------------	----------------	-----------------	------------

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Complete if Known	
		Application Number	10/691,396
		Filing Date	October 21, 2003
		First Named Inventor	HIGGINS, Michael Francis
		Art Unit	2628
		Examiner Name	AMIN, Jwalant B
Sheet	6	of	6
		Attorney Docket Number	08831.59

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/JA/		Messing, Dean et al., Improved Display Resolution of Subsampled Colour Images Using Subpixel Addressing, IEEE ICIP 2002, Vol 1, pp 625-628	
/JA/		Messing, Dean et al., Subpixel Rendering on Non-Striped Colour Matrix Displays, 2003 International Conf on Image Processing, 9/2003, Barcelona, Spain, 4 pages	
/JA/		MOROVIC, J., Gamut Mapping, in Digital Color Imaging Handbook, ed. G. Sharma, Boca Raton, FL: CRC Press, December, 2002, Chapter 10, pp. 635-682	
/JA/		USPTO, Notice of Allowance, dated March 21, 2005 in US Patent No. 6,980,219 (US Serial No. 10/691,200, Attorney Docket No. 8831.0057)	
/JA/		USPTO, Non-Final Office Action dated June 13, 2005 in US Patent Publication Number 2005/0083344 (US Serial No. 10/690,716, Attorney Docket No. 8831.0060)	
/JA/		Claivoyante, Inc. Response to Non-Final Office Action, dated December 13, 2005 in US Patent Publication Number 2005/0083344 (US Serial No. 10/690,716, Attorney Docket No. 8831.0060)	
/JA/		Claivoyante, Inc., Supplemental Amendment dated August 23, 2006 in US Patent Publication Number 2005/0083344 (US Serial No. 10/690,716, Attorney Docket No. 8831.0060)	
/JA/		USPTO, Interview Summary, dated August 25, 2006 in US Patent Publication Number 2005/0083344 (US Serial No. 10/690,716, Attorney Docket No. 8831.0060)	
/JA/		USPTO, Interview Summary, dated August 29, 2006 in US Patent Publication Number 2005/0083344 (US Serial No. 10/690,716, Attorney Docket No. 8831.0060)	

Examiner Signature	/Jwalant Amin/	Date Considered	05/21/2009
--------------------	----------------	-----------------	------------

*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.